

APPROVED	CC
BY	CLASS
DRAFTSMAN	

5804399

1. (SHEET 1 OF 1) 2. (SHEET 2 OF 1) 3. (SHEET 3 OF 1) 4. (SHEET 4 OF 1) 5. (SHEET 5 OF 1) 6. (SHEET 6 OF 1) 7. (SHEET 7 OF 1) 8. (SHEET 8 OF 1) 9. (SHEET 9 OF 1) 10. (SHEET 10 OF 1)

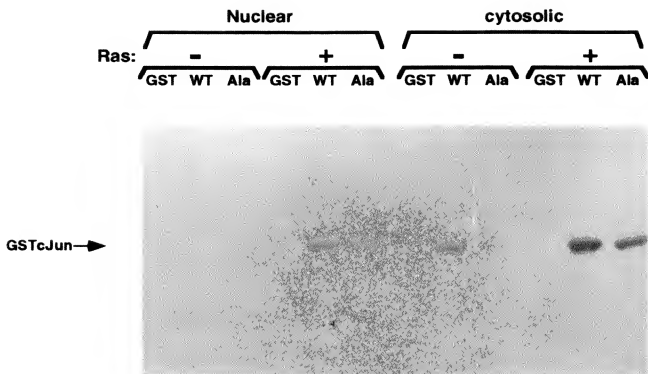


FIG.1

APPROVED	O.G. FIG	
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Treatment:	-	TPA	TPA	TPA	TPA	TPA	TPA	TPA
Substrate:	WT	WT	WT	WT	WT	WT	WT	Ala
Time:	0	5	30	30	30	30	30	30

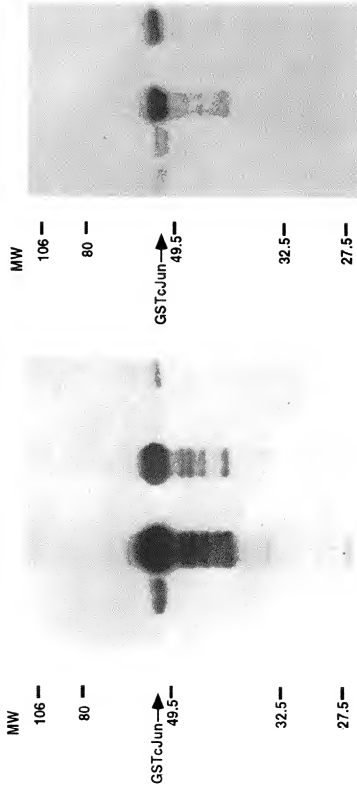


FIG. 2A

FIG. 2B

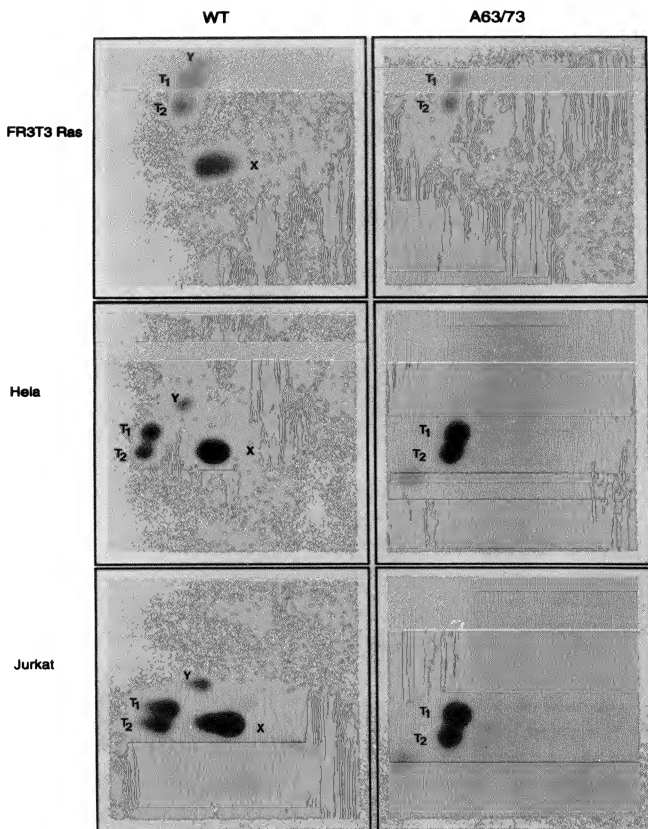
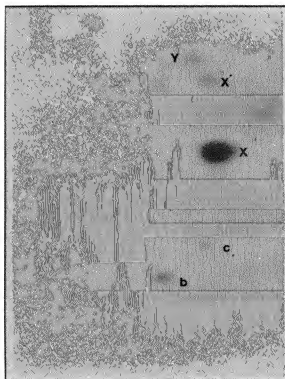


FIG. 3A

APPROVED	O.G. FIG	
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In Vitro



In Vivo

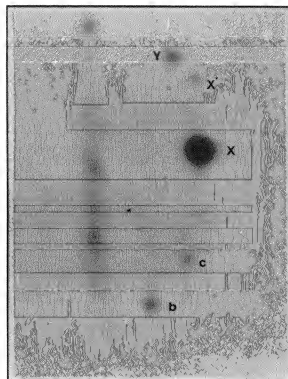


FIG. 3B

APPROVED	O.G. FIG	
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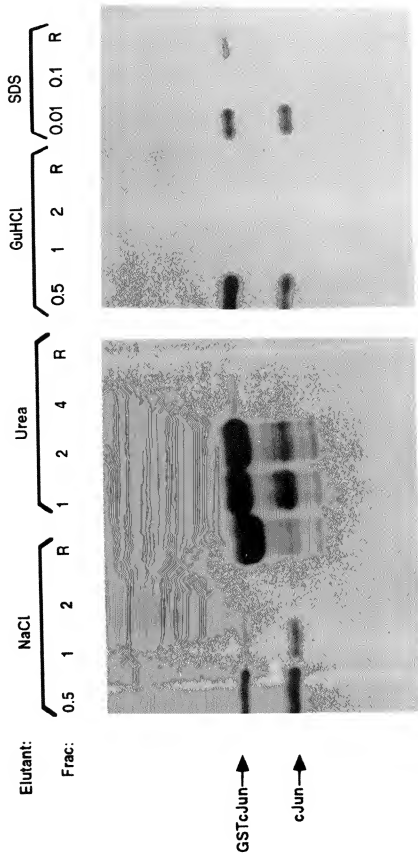


FIG. 4A

APPROVED	C.G. FIG	
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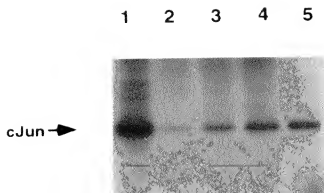


FIG. 4B

APPROVED	O.G. FIG	
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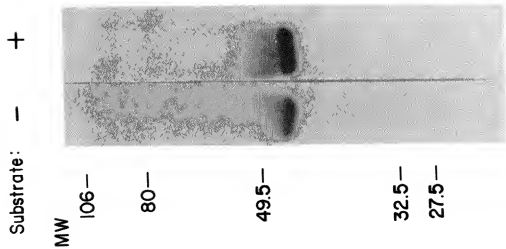


FIG. 5A

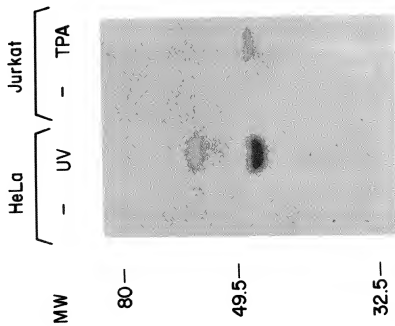


FIG. 5B

APPROVED	O.G. FIG.	
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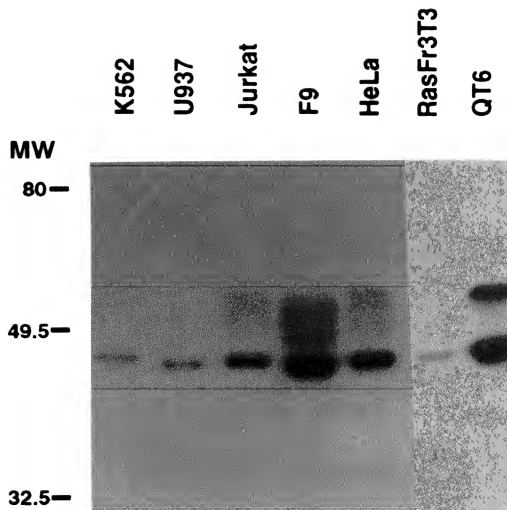


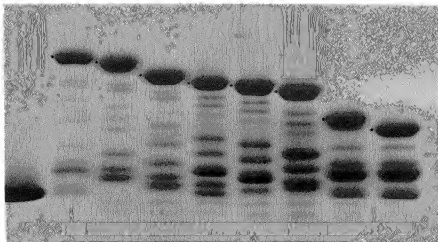
FIG. 5C

APPROVED	O.G. FIG.	
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Protein Gel

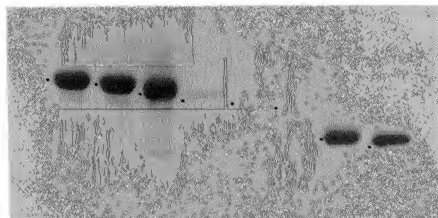
FIG. 6A

GST
GSTcJ(1-223)
GSTcJ(11-223)
GSTcJ(22-223)
GSTcJ(33-223)
GSTcJ(43-223)
GSTcJ(56-223)
GSTcJ(1-93)
GSTcJ(1-79)



**³²P-Immobilized
Substrate**

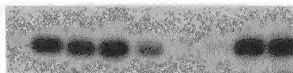
FIG. 6B



**³²P-Exogenous
Substrate**

FIG. 6C

GST
GSTcJ(1-223)
GSTcJ(11-223)
GSTcJ(22-223)
GSTcJ(33-223)
GSTcJ(43-223)
GSTcJ(56-223)
GSTcJ(1-93)
GSTcJ(1-79)



APPROVED		O.G. FIG	
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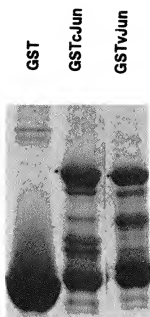


FIG. 7A

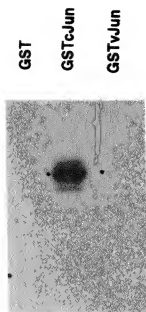


FIG. 7B



FIG. 7C

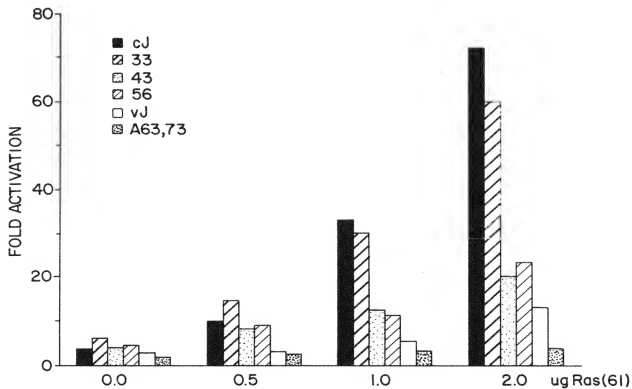


FIG. 8A

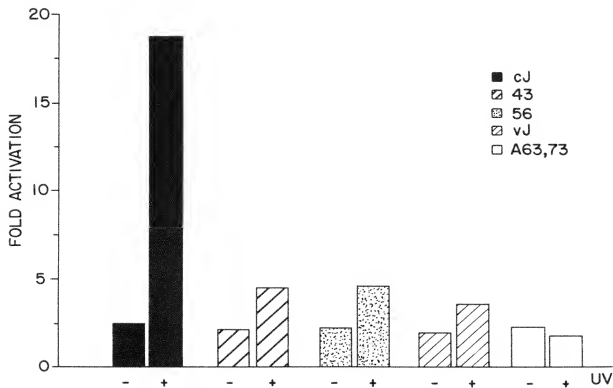


FIG. 8B

APPROVED	O.G. FIG	
BY	GLASS	SUBCLASS
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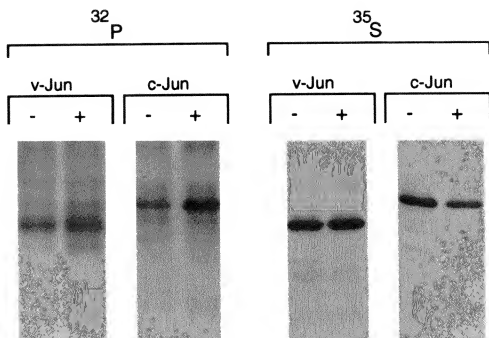


FIG.9A

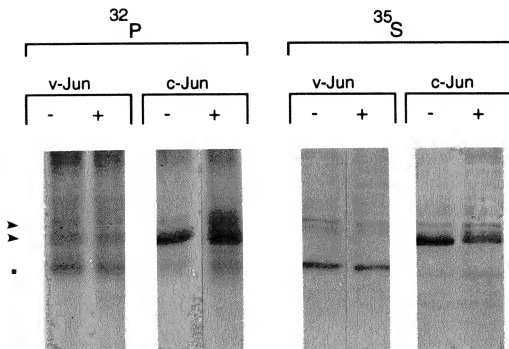


FIG.9B

GAATTCCGG GCGGCCAAGA CCGCGCGCG GCGGGCCACT GCAGGGTCCG CACTGATCCG 60
 CTCGGCGGA GAGCCGCTGC TCTGGGAAGT CAGTTCCGCT GCGGACTCCG AGGAACCGCT 120
 GCGCACGAAG AGCGTCACT GAGTGACCG GACTTTTCAA AGCGGGTAG GCGCGCGGAG 180
 TCGACAAGTA ACAGTGGGG AGGCATCTTA ATTAACCGTG CGTCCCTGG AGCAGCTGGT 240
 GAGGAGGGC CACGGGGACG ACAGCCAGCG GGTGCGTGG CTCTTAGAGA AACTTTCCCT 300
 GTCAAAGGCT CCGGGGGCG CCGGTGTCC CCGCTTCCCA CAGCCCTGTT GCGGCCCGGA 360
 AACTTGTGG CGCACGCCAA ACTAACCTCA CGTGAAGTGA CCGACTGTT T ATG ACT 417
 Met Thr
 1
 GCA AAG ATG GAA ACG ACC TTC TAT GAC GAT GCC CTC AAC GCC TCG TTC 465
 Ala Lys Met Glu Thr Thr Phe Tyr Asp Asp Ala Leu Asn Ala Ser Phe
 5 10 15
 CTC CCC TCC GAG AGG GGA CCT TAT GGC TAC AGT AAC CCC AAG ATC CTG 513
 Leu Pro Ser Glu Arg Gly Pro Tyr Gly Tyr Ser Asn Pro Lys Ile Leu
 20 25 30
 AAA CAG AGC ATG ACC CTG AAC CTG GCC GAC CCA GTG GGG AGC CTG AAG 561
 Lys Gln Ser Met Thr Leu Asn Leu Ala Asp Pro Val Gly Ser Leu Lys
 35 40 45 50

FIG.10A

APPROVED	O.C. FIG	
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609 CCG CAC CTC CGC GCC AAG AAC TCG GAC CTC CTC ACC TCG CCC GAC GTG
 Pro His Leu Arg Ala 55 Lys Asn Ser Asp 60 Leu Leu Thr Ser Pro Asp Val 65

 657 GGG CTG CTC AAG CTG GCG TCG CCC GAG CTG GAG CGC CTG ATA ATC CAG
 Gly Leu Leu Lys 70 Leu Ala Ser Pro Glu Leu Glu Arg Leu Ile Ile Gln 80
 75

 705 TCC AGC AAC GGG CAC ATC ACC ACC AGC CCG ACC CCG ACC CAG TTC CTG
 Ser Ser Asn Gly His 85 Ile Thr Thr Thr Pro Thr Pro Thr Gln Phe Leu 95
 90

 753 TGC CCC AAG AAC GTG ACA GAT GAG CAG GAG GGG TTC GCC GAG GGC TTC
 Cys Pro Lys Asn Val 100 Thr Asp Glu Gln Glu Gly Phe Ala Glu Gly Phe 110
 105

 801 GTG CGC GCC CTG GCC GAA CTG CAC AGC CAG AAC ACG CTG CCC AGC GTC
 Val Arg Ala Leu Ala 115 Glu Ala Glu His Ser Gln Asn Thr Leu Pro Ser Val 120
 125

 849 ACG TCG GCG GCG CAG CCG GTG AAC GCG GCA GGC ATG GTG GGT CCC GCG
 Thr Ser Ala Ala Gln Pro 135 Val Asn Gly Ala Gly Met Val Ala Pro Ala 140
 145

 897 GTA GCC TCG GTG GCA GGG GGC AGC GGC AGC GGC TTC AGC GCC AGC
 Val Ala Ser Val Ala Gly Gly Ser Gly Ser Gly Gly Phe Ser Ala Ser 150
 155
 160

FIG.10B

APPROVED	O.G. FIG	
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CTG CAC AGC GAG CCG CCG GTC TAC GCA AAC CTC AGC AAC TTC AAC CCA 945
 Leu His Ser Glu Pro Pro Val Tyr Ala Asn Leu Ser Asn Phe Asn Pro 175
 165
 GGC CCG CTG AGC AGC GGC GGC GGC CCC TCC TAC GGC GGC GCC GGC GGC 993
 Gly Ala Leu Ser Ser Gly Gly Gly Ala Pro Ser Tyr Gly Ala Ala Gly 185
 180
 CTG CCC TTT CCC GCG CAA CCC CAG CAG CAG CCG CCG CAC CAC CAC 1041
 Leu Ala Phe Pro Ala Gln Pro Gln Gln Gln Gln Pro Pro His His 195
 195
 CTG CCC CAG CAG ATG CCC GTG CAG CAC CCG CCG CTG CAG GCC CTG AAG 1089
 Leu Pro Gln Gln Met Pro Val Gln His Pro Arg Leu Gln Ala Leu Lys 215
 215
 GAG GAG CCT CAG ATA GTG CCC GAG ATG CCC GGC GAG ACA CCG CCC CTG 1137
 Glu Glu Pro Gln Ile Val Pro Glu Met Pro Gly Glu Thr Pro Pro Leu 230
 230
 TCC CCC ATC GAG ATG GAG TCC CAG GAG CCG ATC AAG GCG GAG AGG AAG 1185
 Ser Pro Ile Asp Met Glu Ser Gln Glu Arg Ile Lys Ala Glu Arg Lys 245
 245
 GCG ATG AGG AAC CCG ATC GCT GCC TCG AAG TGC CGA AAA AGG AAG CTG 1233
 Arg Met Arg Asn Arg Ile Ala Ala Ser Lys Cys Arg Lys Arg Lys Leu 260
 260

FIG.10C

APPROVED	O.G. FIG	
BY	CLASS	SUBCLASS
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GAG AGA ATC GCC CGG CTG GAG GAA AAA GTG AAA ACC TTG AAA GCT CAG Glu Arg Ile Ala Arg Leu Glu Glu Lys Val 280 275	1281
AAC TCG GAG CTG GCG TCG ACG GCC AAC ATG CTC AGG GAA CAG GTC GCA Asn Ser Glu Leu Ala Ser Thr Ala Asn Met Leu Arg Glu Gln Val Ala 295 300 305	1329
CAG CTT AAA CAC AAA GTC ATG AAC CAC GTT AAC AGT GGG TGC CAA CTC Gln Leu Lys His Lys Val Met Asn His Val Asn Ser Gly Cys Gln Leu 310 315 320	1377
ATC CTA ACG CAG CAG TTG CAA ACA TTT TGAAGAGAGA CCGTCGGGGG Ile Leu Thr Gln Gln Leu Gln Thr Phe 325 330	1424
CTGAGGGGCA ACGAACA AAAATAACAC AGAGAGACAG ACTTGAGAAC TTGACAAGTT	1484
CGGACGGAGA GAAAAAGAA GTGTCCGAGA ACTAAAGCCA AGGTATCCA AGTTGGACTG	1544
GGTTCGGTCT GACGGGGCCC CCAGTGTGCA CGAGTGGGAA CCACCTGGTC GCGCCCTCCC	1604
TTGGCGTCCA GCCAGGAGC GCGCGCCTGG GGGCTGCCCC GCTTTGCGGA CGGGCTCTCC	1664
CCGGCGGAAC GGAACGTTGG ACTTTCGTTA ACATTGACCA AGAACTGCAT GGACCTAACA	1724

FIG.10D

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TTGATCTCA	TTCAGTATTA	AAGGGGGCAG	GGGGAGGGG	TTACAAACTG	CAATAGAGAC	1784
TGTACATTGC	TTCTGTAGTA	CTCCTTAACA	ACACAAAGCG	GGGGAGGGT	TGGGAGGGG	1844
CGGCAGGAGG	GAGGTTTGTG	AGAGCGAGCG	TGAGCCTACA	GATGAACTCT	TTCTGGCCTG	1904
CTTTGGTTAA	CTGTGTATGT	ACATATATAT	ATTTTTTAAT	TTGATTAAAG	CTGATTACTG	1964
TCAATAAACA	GCTTCATGCC	TTTGTAAGTT	ATTTCCTGTT	TGTTTGTGTT	GGATCCTGCC	2024
CAGTCTTGTT	TGTAATAAAG	AGATTTGGAG	CACCTCTCAGT	TTACCATTTG	TAATAAAGTA	2084
TATAATTTTT	TT					2096

FIG. 10E

APPROVED	O.G. FIG	
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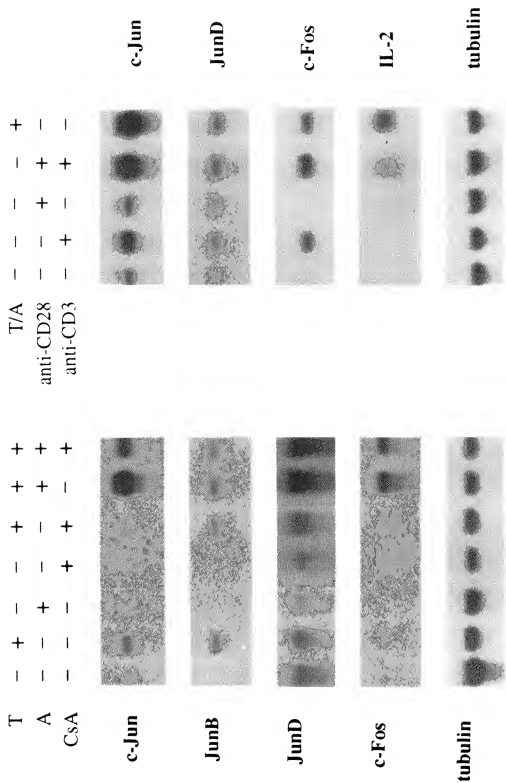


FIG. 1A

FIG. 1B

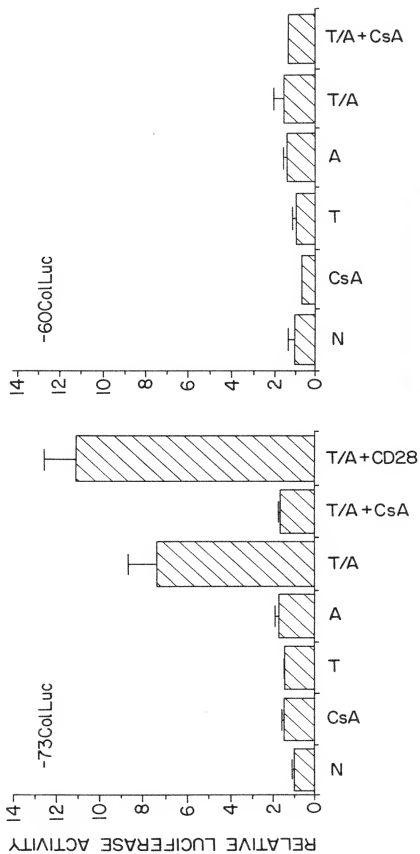


FIG. 11C

APPROVED	C.G. F.G.	
BY	CLASS	SUBCLASS
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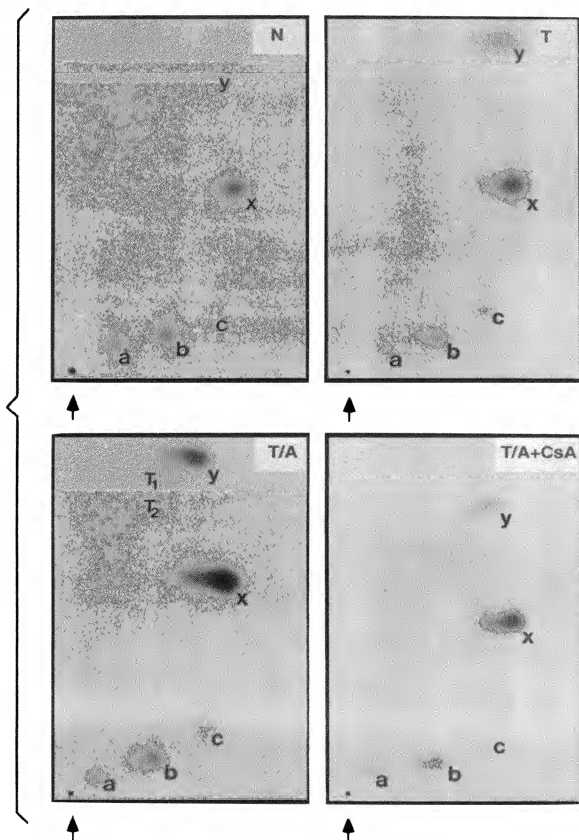


FIG.12C

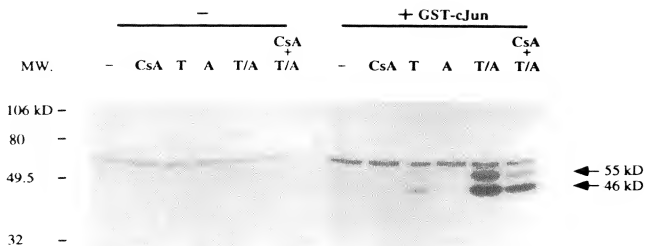


FIG.13A

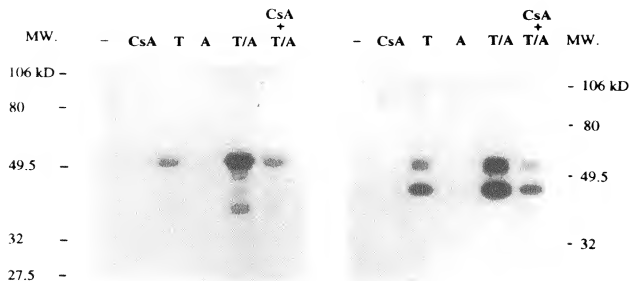
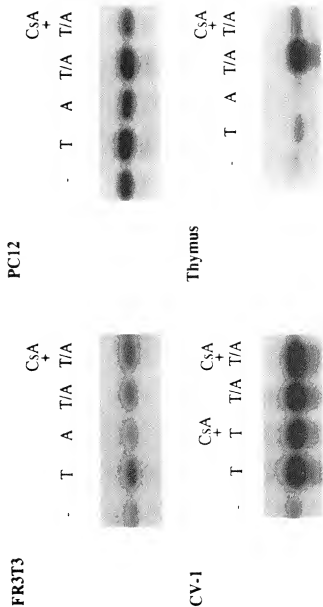


FIG.13B

FIG.13C

APPROVED	O.G. FIG	
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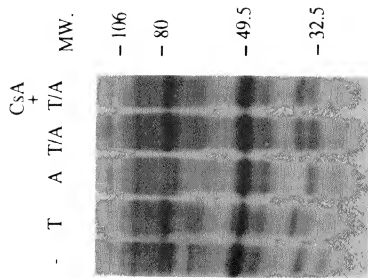


FIG.15C

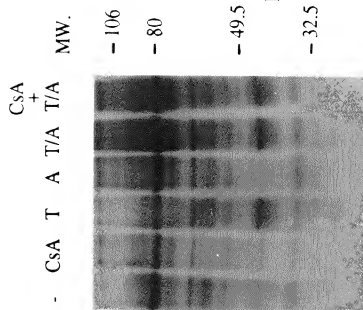


FIG.15A

Erk-1 Mut →

Erk-1 Mut →

FIG.15B

MBP →

FIG.15D

MBP →



FIG.16A

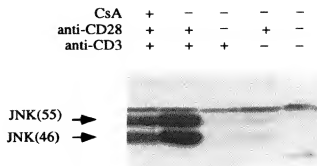


FIG.16B

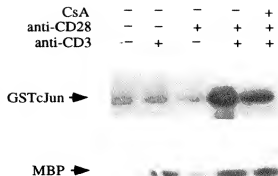
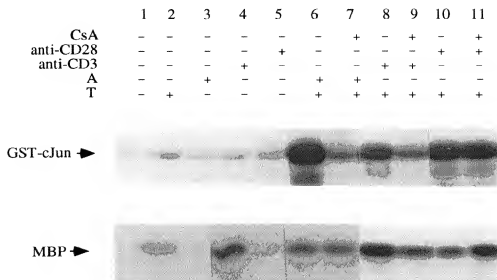


FIG.16C



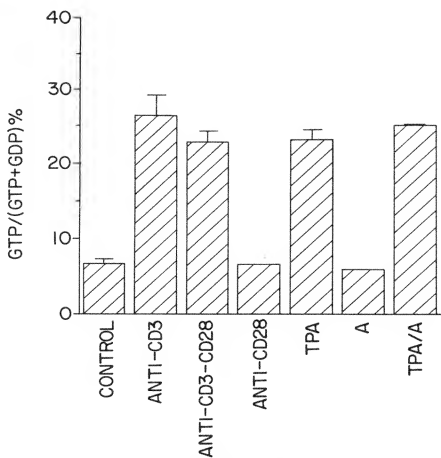


FIG. 17A

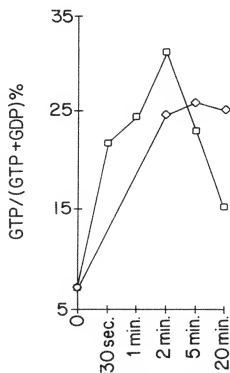


FIG. 17B